This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (currently amended) A system for optically inspecting and evaluating a sample, the system comprising:

a concave spherical mirror positioned to collect light reflected from a measurement spot on the sample surface; and

a convex spherical mirror positioned to receive and collimate the light collected by the concave spherical mirror with the convex and concave spherical mirrors positioned to be mutually non-obscuring and wherein the concave spherical mirror is fabricated as an off-axis section of a first spherical mirror and the convex spherical mirror is fabricated as an off-axis section of a second spherical mirror with the concave and convex spherical mirrors positioned to be substantially monocentric.

Claim 2. (cancelled)

3.   (currently amended) A system for optically inspecting and evaluating a sample, the system comprising:

a concave spherical mirror positioned to project a probe beam onto the sample surface; and

a convex spherical mirror positioned to redirect the probe beam towards the concave spherical mirror, with the convex and concave spherical mirrors positioned to be mutually non-obscuring and wherein the concave spherical mirror is fabricated as an off-axis section of a first spherical mirror and the convex spherical mirror is fabricated as an off-axis section of a second spherical mirror with the concave and convex spherical mirrors positioned to be substantially monocentric.

Claim 4. (cancelled)

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5.   (original) A system for optically inspecting and evaluating a sample, the system comprising:

a concave off-axis paraboloid mirror positioned to collect and to collimate light reflected from a measurement spot on the sample surface at a substantially normal angle of reflection; and

a flat mirror positioned to receive and redirect the light collected by the paraboloid mirror with the paraboloid and flat mirrors positioned to be mutually non-obscuring.

6.   (original) A system for optically inspecting and evaluating a sample, the system comprising:

a concave off-axis paraboloid mirror positioned to project a probe beam onto the sample surface with a substantially normal angle of incidence; and

a flat mirror positioned to redirect the probe beam towards the paraboloid mirror, with the paraboloid and flat mirrors positioned to be mutually non-obscuring.

7.   (currently amended) A method of optically inspecting and evaluating a sample, the method comprising the steps of:

(a)   illuminating the sample with a probe beam;

(b)   gathering a portion of the probe beam reflected by a measurement spot on the sample surface with a concave spherical mirror;

(c)   collimating light gathered by the concave spherical mirror with a convex spherical mirror with the concave and convex spherical mirrors positioned to be mutually non-obscuring; and

(d)   analyzing the collimated light to evaluate the sample and wherein the concave spherical mirror is fabricated as an off-axis section of a first spherical mirror and the convex spherical mirror is fabricated as an off-axis section of a second spherical mirror with the concave and convex spherical mirrors positioned to be substantially monocentric.

Claim 8. (cancelled)

9.   (currently amended) A method of optically inspecting and evaluating a sample, the method comprising the steps of:

(a)   illuminating a convex spherical mirror with a probe beam; and

(b)   focusing the probe beam reflected by the convex spherical mirror on the sample with a concave spherical mirror, with the concave and convex spherical mirrors positioned to be mutually non-obscuring <u>and wherein the concave spherical mirror is fabricated as an off-axis section of a first spherical mirror and the convex spherical mirror is fabricated as an off-axis section of a second spherical mirror with the concave and convex spherical mirrors positioned to be substantially monocentric.</u>

Claim 10. (cancelled)

11.   (original) A method of optically inspecting and evaluating a sample, the method comprising the steps of:

(a)   illuminating the sample with a probe beam;

(b)   gathering and collimating a portion of the probe beam reflected by a measurement spot on the sample surface at a substantially normal angle of reflection with a concave off-axis paraboloid mirror;

(c)   redirecting light gathered by the concave off axis paraboloid mirror with a flat mirror with the paraboloid and flat mirrors positioned to be mutually non-obscuring; and

(d)   analyzing the collimated light to evaluate the sample.

12.   (original) A method of optically inspecting and evaluating a sample, the method comprising the steps of:

(a)   illuminating a flat mirror with a probe beam; and

(b)   focusing the probe beam reflected by the flat mirror on the sample at a substantially normal angle of incidence with a concave off-axis paraboloid mirror, with the paraboloid and flat mirrors positioned to be mutually non-obscuring.

13.   (currently amended) An objective for normal incidence broadband ~~reflectometry in which all~~ metrology comprising:

       a set of focusing optical components which are all reflective and ~~in which there is~~ which are oriented so that there is no central obscuration, said optical components being positioned to illuminate a sample with a broadband probe beam at normal incidence and/or collect light from a broadband probe beam reflected from a sample at normal incidence.

Claims 14-15. (cancelled)

16.   (original) An objective as recited in claim 13 that further comprises:

       a concave off-axis paraboloid mirror positioned to collect and to collimate light reflected from a measurement spot on the surface of a sample at a substantially normal angle of reflection; and

       a flat mirror positioned to receive and redirect the light collected by the paraboloid mirror with the paraboloid and flat mirrors positioned to be mutually non-obscuring.

17.   (new) A system as recited in claim 1, further including an aperture stop located near one the mirrors.

18.   (new) A system as recited in claim 3, further including an aperture stop located near one the mirrors.

19.   (new) A system as recited in claim 5, further including a detector positioned to receive light redirected by the flat mirror, said system further including an aperture stop located between the flat mirror and the detector.

20.   (new) An objective as recited in claim 16, further including an aperture stop positioned in the path of the light redirected by the flat mirror.